



QPL 1688

## MATERIAL SAFETY DATA SHEET

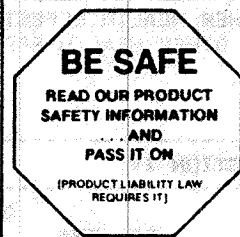
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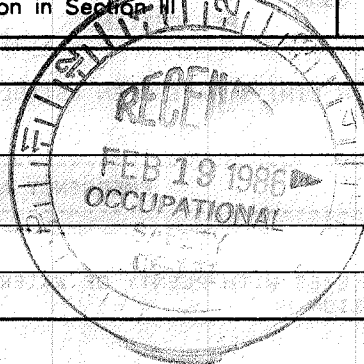
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97367 (4-85)

<b>24 HOUR EMERGENCY ASSISTANCE</b>			<b>GENERAL MSDS ASSISTANCE</b>		
SHELL: 713-473-9461 CHEMTREC: 800-424-9300			SHELL: 713-241-4819		
ACUTE HEALTH * + 2	FIRE 1	REACTIVITY 0	HAZARD RATING LEAST - 0 SLIGHT - 1 MODERATE - 2 HIGH - 3 EXTREME - 4		
*For acute and chronic health effects refer to the discussion in Section III					



<b>SECTION I</b>		NAME
PRODUCT	EPON(R) RESIN 828	
CHEMICAL NAME	BISPHENOL A/EPICHLOROHYDRIN RESIN	
CHEMICAL FAMILY	EPOXY RESIN	
SHELL CODE	43240	



SECTION II-A PRODUCT/INGREDIENT			
NO.	COMPOSITION	CAS NUMBER	PERCENT
P	EPON RESIN 828	25068-38-6	100

SECTION II-B ACUTE TOXICITY DATA			
NO.	ACUTE ORAL LD50	ACUTE DERMAL LD50	ACUTE INHALATION LC50
P	11.4 G/KG (RAT)	> 20 M/KG (RABBIT)	NO DEATHS IN SAT'D AIR, 8 HR.
P	15.6 G/KG (MOUSE)		

## SECTION III HEALTH INFORMATION

THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

**EYE CONTACT**

BASED ON PRODUCT TESTING PRODUCT IS MODERATELY IRRITATING TO THE EYES.

**SKIN CONTACT**

BASED ON PRODUCT TESTING PRODUCT IS MODERATELY IRRITATING TO THE SKIN. BASED ON PRODUCT TESTING PRODUCT MAY CAUSE SKIN SENSITIZATION.

**INHALATION**

BECAUSE OF ITS VERY LOW VOLATILITY THIS PRODUCT IS NOT LIKELY TO PRODUCE ANY ADVERSE EFFECT BY INHALATION.

**INGESTION**

BASED ON PRODUCT TESTING PRODUCT IS GENERALLY CONSIDERED TO HAVE A LOW ORDER OF ACUTE ORAL TOXICITY.

**SIGNS AND SYMPTOMS**

IRRITATION AS NOTED. SKIN SENSITIZATION (ALLERGY) MAY BE EVIDENCED BY RASHES, ESPECIALLY HIVES.

**AGGRAVATED MEDICAL CONDITIONS**

PREEXISTING SKIN ALLERGIES MAY INCREASE THE CHANCE OF DEVELOPING INCREASED ALLERGY SYMPTOMS FROM EXPOSURE TO THIS PRODUCT. PREEXISTING SKIN AND EYE DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS

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PRODUCT:

**OTHER HEALTH EFFECTS**

NO OTHER HEALTH EFFECTS ARE KNOWN.

**SECTION IV**

**OCCUPATIONAL EXPOSURE LIMITS**

NO.	PEL/TWA	OSHA	PEL/CEILING	TLV/TWA	ACGIH	TLV/STEL	OTHER
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\* NO OSHA NOR ACGIH LIMITS HAVE BEEN ESTABLISHED.

**SECTION V**

**EMERGENCY AND FIRST AID PROCEDURES**

**EYE CONTACT**

IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE HOLDING EYELIDS OPEN.  
GET MEDICAL ATTENTION.

**SKIN CONTACT**

IMMEDIATELY REMOVE CONTAMINATED CLOTHING OR SHOES. WIPE EXCESS FROM SKIN AND FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. USE SOAP IF AVAILABLE OR FOLLOW BY WASHING WITH SOAP AND WATER. DO NOT REUSE CLOTHING UNTIL THOROUGHLY CLEANED. GET MEDICAL ATTENTION. CONTAMINATED LEATHER ARTICLES, INCLUDING SHOES, CANNOT BE DECONTAMINATED AND SHOULD BE DESTROYED.

**INHALATION**

REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GET MEDICAL ATTENTION.

**INGESTION**

DO NOT INDUCE VOMITING. IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES OF PRODUCT ARE INGESTED. HOWEVER, GET MEDICAL ADVICE.\*

**NOTE TO PHYSICIAN**

\*IN GENERAL, EMESIS INDUCTION IS UNNECESSARY IN HIGH VISCOSITY, LOW VOLATILITY PRODUCTS.

**SECTION VI**

**SUPPLEMENTAL HEALTH INFORMATION**

ALTHOUGH THE SIGNIFICANCE IS UNKNOWN, EPON RESIN 828 HAS BEEN SHOWN TO BE MUTAGENIC IN SOME MICROBIAL TESTS, BUT HAS FAILED TO SHOW MUTAGENICITY IN OTHERS. CHROMOSOMAL ABERRATIONS WERE OBSERVED IN CULTURED RAT LIVER CELLS.

**SECTION VII**

**PHYSICAL DATA**

BOILING POINT: NOT AVAILABLE  
(DEG F)

SPECIFIC GRAVITY: 1.17  
(H2O=1)

VAPOR PRESSURE: NOT AVAILABLE  
(MM HG)

MELTING POINT: NOT AVAILABLE  
(DEG F)

SOLUBILITY: NEGLIBLE  
(IN WATER)

VAPOR DENSITY: NOT APPLICABLE  
(AIR=1)

EVAPORATION RATE (N-BUTYL ACETATE = 1): NOT APPLICABLE

APPEARANCE AND ODOR: VERY LIGHT YELLOW, VERY VISCOUS LIQUID.

## SECTION VIII

## FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD:  
480 DEG F (PMCC)

FLAMMABLE LIMITS % VOLUME IN AIR  
LOWER: N/AV UPPER: N/AV

## EXTINGUISHING MEDIA

USE WATER FOG, FOAM, DRY CHEMICAL OR CO2.

## SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS

MATERIAL WILL NOT BURN UNLESS PREHEATED. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND RUBBER BOOTS). INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER.

## UNUSUAL FIRE AND EXPLOSION HAZARDS

NO UNUSUAL HAZARDS.

## SECTION IX

## REACTIVITY

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

## CONDITIONS AND MATERIALS TO AVOID:

CAN REACT VIGOROUSLY WITH STRONG OXIDIZING AGENTS AND STRONG LEWIS OR MINERAL ACIDS. IN REACTIONS WITH MANY CURING AGENTS, CONSIDERABLE HEAT IS RELEASED.

## HAZARDOUS DECOMPOSITION PRODUCTS

CARBON MONOXIDE, ALDEHYDES AND ACIDS MAY BE FORMED DURING COMBUSTION. REACTION WITH SOME CURING AGENTS MAY PRODUCE CONSIDERABLE HEAT.

## SECTION X

## EMPLOYEE PROTECTION

## RESPIRATORY PROTECTION

NOT ORDINARILY REQUIRED. IF RESIN IS WARMED OR HEATED VAPORS OR MISTS MAY BE PRODUCED. IN SUCH CASES, USE A NIOSH-APPROVED RESPIRATOR AS REQUIRED TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134, USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

## PROTECTIVE CLOTHING

AVOID CONTACT WITH EYES. WEAR SAFETY GLASSES OR GOGGLES AS APPROPRIATE. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. WEAR CHEMICAL-RESISTANT GLOVES AND OTHER CLOTHING AS REQUIRED TO MINIMIZE CONTACT.

## ADDITIONAL PROTECTIVE MEASURES

USE VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS. (IF HEATED, VAPORS OR MIST MAY BE PRODUCED.)

## SECTION XI

## ENVIRONMENTAL PROTECTION

## SPILL OR LEAK PROCEDURES

MAY BURN ALTHOUGH NOT READILY IGNITABLE. USE CAUTIOUS JUDGMENT WHEN CLEANING UP LARGE SPILLS. \*\*\* LARGE SPILLS \*\*\* WEAR RESPIRATOR AND PROTECTIVE CLOTHING AS APPROPRIATE. SHUT OFF SOURCE OF LEAK IF SAFE TO DO SO. DIKE AND CONTAIN. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND OR OTHER SUITABLE MATERIAL; DISPOSE OF PROPERLY. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE. \*\*\* SMALL SPILLS \*\*\* TAKE UP WITH AN ABSORBENT MATERIAL AND DISPOSE OF PROPERLY.

## WASTE DISPOSAL

PLACE IN AN APPROPRIATE DISPOSAL FACILITY IN COMPLIANCE WITH LOCAL REGULATIONS.

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SECTION XII

SPECIAL PRECAUTIONS

STORE IN A COOL, DRY PLACE WITH ADEQUATE VENTILATION. KEEP AWAY FROM OPEN FLAMES AND HIGH TEMPERATURES. HANDLE IN ACCORDANCE WITH THE HAZARD POTENTIAL OF CURING AGENT(S) USED. CAUTION: MAY CAUSE IRRITATION. AVOID CONTACT WITH EYES. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. AVOID PROLONGED OR REPEATED BREATHING OF VAPOR. WASH THOROUGHLY AFTER HANDLING. LAUNDRY CONTAMINATED CLOTHING BEFORE REUSE. CONTAMINATED LEATHER ARTICLES, INCLUDING SHOES, CANNOT BE DECONTAMINATED AND SHOULD BE DESTROYED.

SECTION XIII

TRANSPORTATION REQUIREMENTS

DEPARTMENT OF TRANSPORTATION CLASSIFICATION: NOT HAZARDOUS BY D.O.T. REGULATIONS  
D.O.T. PROPER SHIPPING NAME: NOT REGULATED

OTHER REQUIREMENTS:  
N/A

SECTION XIV

OTHER REGULATORY CONTROLS

THIS PRODUCT IS LISTED ON THE EPA/TSCA INVENTORY OF CHEMICAL SUBSTANCES.

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, SHELL MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. SHELL ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

DATE PREPARED: SEPTEMBER 16, 1985

JOHN P. SEPESE

BE SAFE

READ OUR PRODUCT  
SAFETY INFORMATION ... AND PASS IT ON  
(PRODUCT LIABILITY LAW  
REQUIRES IT)

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